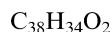
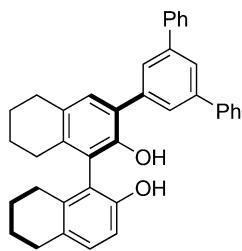


Stereochemistry abstracts

Toshiro Harada* and Takahiro Ukon

Tetrahedron: Asymmetry 18 (2007) 2499



(*R*)-3-(3,5-Diphenylphenyl)-2,2'-dihydroxy-5,5',6,6',7,7',8,8'-octahydro-1,1'-binaphthyl

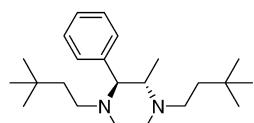
$[\alpha]_D^{25} = +69.7$ (*c* 1.00, $CHCl_3$)

Source of chirality: (*R*)-2,2'-dihydroxy-5,5',6,6',7,7',8,8'-octahydro-1,1'-binaphthyl

Absolute configuration: (*R*)

Quentin Perron and Alexandre Alexakis*

Tetrahedron: Asymmetry 18 (2007) 2503



Ee = 99%

$[\alpha]_D^{20} = +36.2$ (*c* 0.97, $CHCl_3$)

Source of chirality: (+)-pseudoephedrin

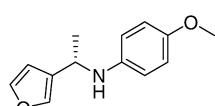
Absolute configuration: (1*S*,2*S*)



(1*S*,2*S*)-*N*1,*N*2-Bis(3,3-dimethylbutyl)-*N*1,*N*2-dimethyl-1-phenylpropane-1,2-diamine

Quentin Perron and Alexandre Alexakis*

Tetrahedron: Asymmetry 18 (2007) 2503



Ee = 75%

$[\alpha]_D^{20} = -14.7$ (*c* 1.04, $CHCl_3$)

Source of chirality: asymmetric synthesis

Absolute configuration: (*S*)



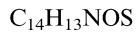
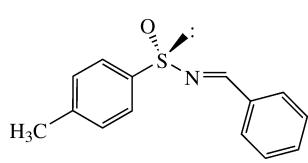
(*S*)-*N*-(1-(Furan-3-yl)ethyl)-4-methoxybenzenamine

Monika Ardej-Jakubisiak, Robert Kawęcki* and Aneta Świdlińska

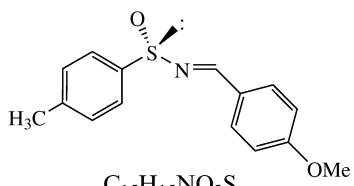
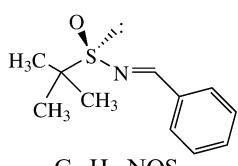
Tetrahedron: Asymmetry 18 (2007) 2507

$[\alpha]_D = +111.7$ (*c* 1.1, $CHCl_3$)

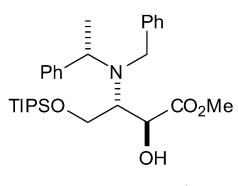
Absolute configuration: (*S*)



(*S*_s)-*N*-Benzylidene-*p*-tolylsulfonamide

 (S_s) -*N*-*p*-Methoxybenzylidene-*p*-tolylsulfinamide $[\alpha]_D = +38.1$ (*c* 1.0, CHCl₃)Absolute configuration: (*S*) (R_s) -*N*-Benzylidene-*t*-butylsulfinamide $[\alpha]_D = -104.7$ (*c* 1.0, CHCl₃)Absolute configuration: (*R*)

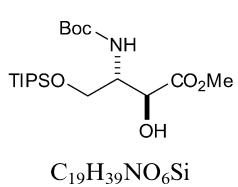
Elin Abraham, José I. Candela-Lena, Stephen G. Davies,*
 Matthew Georgiou, Rebecca L. Nicholson, Paul M. Roberts,
 Angela J. Russell, Elena M. Sánchez-Fernández, Andrew D. Smith
 and James E. Thomson

Methyl (2*S*,3*S*, α *S*)-2-hydroxy-3-[*N*-benzyl-*N*-(α -methylbenzyl)amino]-4-tri-*iso*-propylsilyloxy-butanoate $[\alpha]_D^{22} = +37.0$ (*c* 2.3 in CHCl₃)

Source of chirality: asymmetric synthesis

Absolute configuration: (2*S*,3*S*, α *S*)

Elin Abraham, José I. Candela-Lena, Stephen G. Davies,*
 Matthew Georgiou, Rebecca L. Nicholson, Paul M. Roberts,
 Angela J. Russell, Elena M. Sánchez-Fernández, Andrew D. Smith
 and James E. Thomson

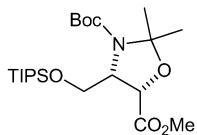
Methyl (2*S*,3*S*)-2-hydroxy-3-[*N*-(*tert*-butoxycarbonyl)amino]-4-tri-*iso*-propylsilyloxy-butanoate $[\alpha]_D^{21} = +17.3$ (*c* 0.4 in CHCl₃)

Source of chirality: asymmetric synthesis

Absolute configuration: (2*S*,3*S*)

Elin Abraham, José I. Candela-Lena, Stephen G. Davies,*
 Matthew Georgiou, Rebecca L. Nicholson, Paul M. Roberts,
 Angela J. Russell, Elena M. Sánchez-Fernández, Andrew D. Smith
 and James E. Thomson

Tetrahedron: Asymmetry 18 (2007) 2510



$C_{21}H_{41}NO_5Si$
 (4S,5S)-2,2-Dimethyl-N(3)-*tert*-butoxycarbonyl-4-tri-*iso*-propylsilyloxymethyl-5-methoxycarbonyl-oxazolidine

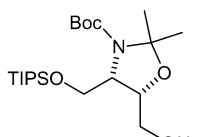
$[\alpha]_D^{22} = +15.2$ (*c* 1.8 in $CHCl_3$)

Source of chirality: asymmetric synthesis

Absolute configuration: (4S,5S)

Elin Abraham, José I. Candela-Lena, Stephen G. Davies,*
 Matthew Georgiou, Rebecca L. Nicholson, Paul M. Roberts,
 Angela J. Russell, Elena M. Sánchez-Fernández, Andrew D. Smith
 and James E. Thomson

Tetrahedron: Asymmetry 18 (2007) 2510



$C_{21}H_{43}NO_5Si$
 (4S,5S)-2,2-Dimethyl-N(3)-*tert*-butoxycarbonyl-4-tri-*iso*-propylsilyloxymethyl-5-hydroxymethyl-oxazolidine

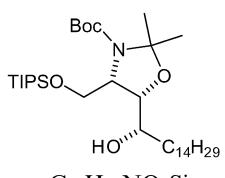
$[\alpha]_D^{22} = +9.8$ (*c* 0.8 in $CHCl_3$)

Source of chirality: asymmetric synthesis

Absolute configuration: (4S,5S)

Elin Abraham, José I. Candela-Lena, Stephen G. Davies,*
 Matthew Georgiou, Rebecca L. Nicholson, Paul M. Roberts,
 Angela J. Russell, Elena M. Sánchez-Fernández, Andrew D. Smith
 and James E. Thomson

Tetrahedron: Asymmetry 18 (2007) 2510



$C_{35}H_{71}NO_5Si$
 (4S,5S,1'S)-2,2-Dimethyl-N(3)-*tert*-butoxycarbonyl-4-tri-*iso*-propylsilyloxymethyl-5-(1'-hydroxypentadecyl)oxazolidine

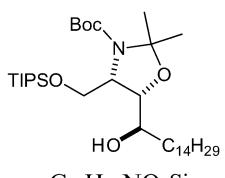
$[\alpha]_D^{22} = +7.8$ (*c* 0.5 in $CHCl_3$)

Source of chirality: asymmetric synthesis

Absolute configuration: (4S,5S,1'R)

Elin Abraham, José I. Candela-Lena, Stephen G. Davies,*
 Matthew Georgiou, Rebecca L. Nicholson, Paul M. Roberts,
 Angela J. Russell, Elena M. Sánchez-Fernández, Andrew D. Smith
 and James E. Thomson

Tetrahedron: Asymmetry 18 (2007) 2510



$C_{35}H_{71}NO_5Si$
 (4S,5S,1'R)-2,2-Dimethyl-N(3)-*tert*-butoxycarbonyl-4-tri-*iso*-propylsilyloxymethyl-5-(1'-hydroxypentadecyl)oxazolidine

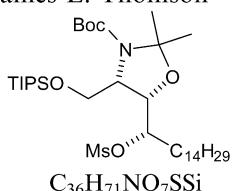
$[\alpha]_D^{22} = +7.5$ (*c* 2.8 in $CHCl_3$)

Source of chirality: asymmetric synthesis

Absolute configuration: (4S,5S,1'R)

Elin Abraham, José I. Candela-Lena, Stephen G. Davies,*
 Matthew Georgiou, Rebecca L. Nicholson, Paul M. Roberts,
 Angela J. Russell, Elena M. Sánchez-Fernández, Andrew D. Smith
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Tetrahedron: Asymmetry 18 (2007) 2510



(4S,5S,1'S)-2,2-Dimethyl-N(3)-tert-butoxycarbonyl-4-tri-iso-propylsilyloxymethyl-5-[1'-(methanesulfonyloxy)-pentadecyl]oxazolidine

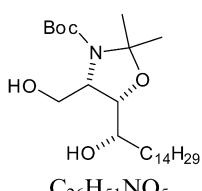
$[\alpha]_D^{22} = +6.1$ (*c* 2.5 in CHCl₃)

Source of chirality: asymmetric synthesis

Absolute configuration: (4S,5S,1'S)

Elin Abraham, José I. Candela-Lena, Stephen G. Davies,*
 Matthew Georgiou, Rebecca L. Nicholson, Paul M. Roberts,
 Angela J. Russell, Elena M. Sánchez-Fernández, Andrew D. Smith
 and James E. Thomson

Tetrahedron: Asymmetry 18 (2007) 2510



(4S,5S,1'S)-2,2-Dimethyl-N(3)-tert-butoxycarbonyl-4-hydroxymethyl-5-(1'-hydroxypentadecyl)oxazolidine

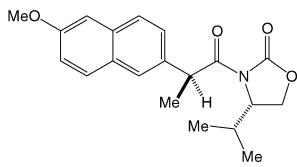
$[\alpha]_D^{22} = +10.1$ (*c* 2.2 in CHCl₃)

Source of chirality: asymmetric synthesis

Absolute configuration: (4S,5S,1'S)

Ewan Boyd, Elliot Coulbeck, Gregory S. Coumbarides, Sameer Chavda,
 Marco Dingjan, Jason Eames,* Anthony Flinn, Majid Motevalli,
 Julian Northen and Yonas Yohannes

Tetrahedron: Asymmetry 18 (2007) 2515



(4S)-Isopropyl-3-[2S-(6-methoxynaphth-2-yl)-propionyl]-oxazolidin-2-one

Ee > 98%; De > 98%

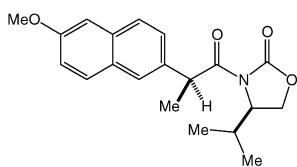
$[\alpha]_D^{20} = +194.3$ (*c* 1.6, CHCl₃)

Source of chirality: asymmetric synthesis

Absolute configuration: (S,S)

Ewan Boyd, Elliot Coulbeck, Gregory S. Coumbarides, Sameer Chavda,
 Marco Dingjan, Jason Eames,* Anthony Flinn, Majid Motevalli,
 Julian Northen and Yonas Yohannes

Tetrahedron: Asymmetry 18 (2007) 2515



(4R)-Isopropyl-3-[2S-(6-methoxynaphth-2-yl)-propionyl]-oxazolidin-2-one

Ee > 98%; De > 98%

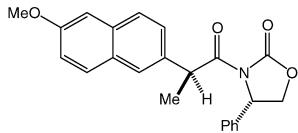
$[\alpha]_D^{20} = +218.4$ (*c* 2.0, CHCl₃)

Source of chirality: asymmetric synthesis

Absolute configuration: (S,R)

Ewan Boyd, Elliot Coulbeck, Gregory S. Coumbarides, Sameer Chavda, Marco Dingjan, Jason Eames,* Anthony Flinn, Majid Motevalli, Julian Northen and Yonas Yohannes

Tetrahedron: Asymmetry 18 (2007) 2515



Ee >98%; De >98%

$[\alpha]_D^{20} = +167.5$ (*c* 1.4, CHCl₃)

Source of chirality: asymmetric synthesis

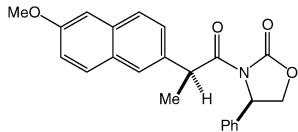
Absolute configuration: (S,S)

C₂₃H₂₁NO₄

(4S)-Phenyl-3-[2S-(6-methoxynaphth-2-yl)-propionyl]-oxazolidin-2-one

Ewan Boyd, Elliot Coulbeck, Gregory S. Coumbarides, Sameer Chavda, Marco Dingjan, Jason Eames,* Anthony Flinn, Majid Motevalli, Julian Northen and Yonas Yohannes

Tetrahedron: Asymmetry 18 (2007) 2515



Ee >98%; De >98%

$[\alpha]_D^{20} = +59.6$ (*c* 3.3, CHCl₃)

Source of chirality: asymmetric synthesis

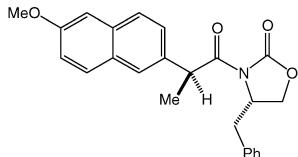
Absolute configuration: (S,R)

C₂₃H₂₁NO₄

(4R)-Phenyl-3-[2S-(6-methoxynaphth-2-yl)-propionyl]-oxazolidin-2-one

Ewan Boyd, Elliot Coulbeck, Gregory S. Coumbarides, Sameer Chavda, Marco Dingjan, Jason Eames,* Anthony Flinn, Majid Motevalli, Julian Northen and Yonas Yohannes

Tetrahedron: Asymmetry 18 (2007) 2515



Ee >98%; De >98%

$[\alpha]_D^{20} = +135.6$ (*c* 0.73, CHCl₃)

Source of chirality: asymmetric synthesis

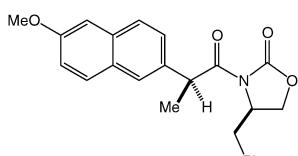
Absolute configuration: (S,S)

C₂₄H₂₃NO₄

(4S)-Benzyl-3-[2S-(6-methoxynaphth-2-yl)-propionyl]-oxazolidin-2-one

Ewan Boyd, Elliot Coulbeck, Gregory S. Coumbarides, Sameer Chavda, Marco Dingjan, Jason Eames,* Anthony Flinn, Majid Motevalli, Julian Northen and Yonas Yohannes

Tetrahedron: Asymmetry 18 (2007) 2515



Ee >98%; De >98%

$[\alpha]_D^{20} = +29.2$ (*c* 1.2, CHCl₃)

Source of chirality: asymmetric synthesis

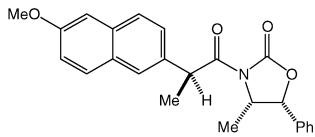
Absolute configuration: (S,R)

C₂₄H₂₃NO₄

(4R)-Benzyl-3-[2S-(6-methoxynaphth-2-yl)-propionyl]-oxazolidin-2-one

Ewan Boyd, Elliot Coulbeck, Gregory S. Coumbarides, Sameer Chavda, Marco Dingjan, Jason Eames,* Anthony Flinn, Majid Motevalli, Julian Northen and Yonas Yohannes

Tetrahedron: Asymmetry 18 (2007) 2515

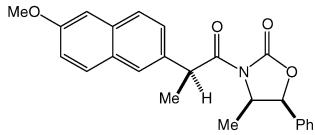


$C_{24}H_{23}NO_4$
(4S,5R)-4-Methyl-5-phenyl-3-[2S-(6-methoxynaphth-2-yl)-propionyl]-oxazolidin-2-one

Ee >98%; De >98%
 $[\alpha]_D^{20} = +88.9$ (*c* 1.2, CHCl₃)
 Source of chirality: asymmetric synthesis
 Absolute configuration: (S,S,R)

Ewan Boyd, Elliot Coulbeck, Gregory S. Coumbarides, Sameer Chavda, Marco Dingjan, Jason Eames,* Anthony Flinn, Majid Motevalli, Julian Northen and Yonas Yohannes

Tetrahedron: Asymmetry 18 (2007) 2515

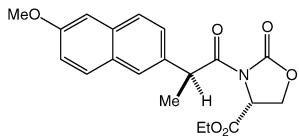


$C_{24}H_{23}NO_4$
(4R,5S)-4-Methyl-5-phenyl-3-[2S-(6-methoxynaphth-2-yl)-propionyl]-oxazolidin-2-one

Ee >98%; De >98%
 $[\alpha]_D^{20} = +142.9$ (*c* 1.4, CHCl₃)
 Source of chirality: asymmetric synthesis
 Absolute configuration: (S,R,S)

Ewan Boyd, Elliot Coulbeck, Gregory S. Coumbarides, Sameer Chavda, Marco Dingjan, Jason Eames,* Anthony Flinn, Majid Motevalli, Julian Northen and Yonas Yohannes

Tetrahedron: Asymmetry 18 (2007) 2515

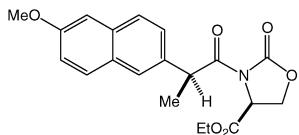


$C_{20}H_{21}NO_6$
(4R)-Ethyl 2-oxa-3-[2S-(6-methoxynaphth-2-yl)-propionyl]-oxazolidin-4-carboxylate

Ee >98%; De >98%
 $[\alpha]_D^{20} = +146.8$ (*c* 0.92, CHCl₃)
 Source of chirality: asymmetric synthesis
 Absolute configuration: (S,R)

Ewan Boyd, Elliot Coulbeck, Gregory S. Coumbarides, Sameer Chavda, Marco Dingjan, Jason Eames,* Anthony Flinn, Majid Motevalli, Julian Northen and Yonas Yohannes

Tetrahedron: Asymmetry 18 (2007) 2515

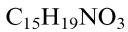
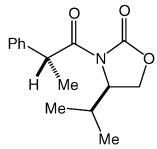


$C_{20}H_{21}NO_6$
(4S)-Ethyl 2-oxa-3-[2S-(6-methoxynaphth-2-yl)-propionyl]-oxazolidin-4-carboxylate

Ee >98%; De >98%
 $[\alpha]_D^{20} = +55.7$ (*c* 3.0, CHCl₃)
 Source of chirality: asymmetric synthesis
 Absolute configuration: (S,S)

Ewan Boyd, Elliot Coulbeck, Gregory S. Coumbarides, Sameer Chavda, Marco Dingjan, Jason Eames,* Anthony Flinn, Majid Motevalli, Julian Northen and Yonas Yohannes

Tetrahedron: Asymmetry 18 (2007) 2515



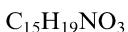
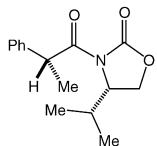
(4*R*)-Isopropyl-3-(2*R*-phenylpropionyl)-oxazolidin-2-one

Ee >98%; De >98%

$[\alpha]_D^{20} = -109.6$ (*c* 11.6, $CHCl_3$)

Source of chirality: asymmetric synthesis

Absolute configuration: (*R,R*)



(4*S*)-Isopropyl-3-(2*R*-phenylpropionyl)-oxazolidin-2-one

Ee >98%; De >98%

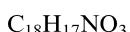
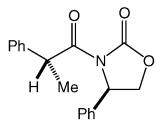
$[\alpha]_D^{20} = -19.4$ (*c* 3.0, $CHCl_3$)

Source of chirality: asymmetric synthesis

Absolute configuration: (*R,S*)

Ewan Boyd, Elliot Coulbeck, Gregory S. Coumbarides, Sameer Chavda, Marco Dingjan, Jason Eames,* Anthony Flinn, Majid Motevalli, Julian Northen and Yonas Yohannes

Tetrahedron: Asymmetry 18 (2007) 2515



(4*R*)-Phenyl-3-(2*R*-phenylpropionyl)-oxazolidin-2-one

Ee >98%; De >98%

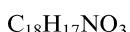
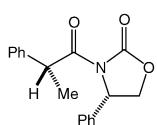
$[\alpha]_D^{20} = -179.1$ (*c* 3.0, $CHCl_3$)

Source of chirality: asymmetric synthesis

Absolute configuration: (*R,R*)

Ewan Boyd, Elliot Coulbeck, Gregory S. Coumbarides, Sameer Chavda, Marco Dingjan, Jason Eames,* Anthony Flinn, Majid Motevalli, Julian Northen and Yonas Yohannes

Tetrahedron: Asymmetry 18 (2007) 2515



(4*S*)-Phenyl-3-(2*R*-phenylpropionyl)-oxazolidin-2-one

Ee >98%; De >98%

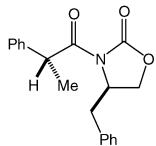
$[\alpha]_D^{20} = -83.4$ (*c* 5.0, $CHCl_3$)

Source of chirality: asymmetric synthesis

Absolute configuration: (*R,S*)

Ewan Boyd, Elliot Coulbeck, Gregory S. Coumbarides, Sameer Chavda, Marco Dingjan, Jason Eames,* Anthony Flinn, Majid Motevalli, Julian Northen and Yonas Yohannes

Tetrahedron: Asymmetry 18 (2007) 2515



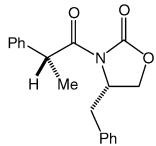
(4*R*)-Benzyl-3-(2*R*-phenylpropionyl)-oxazolidin-2-one

Ee >98%; De >98%

[α]_D²⁰ = -104.0 (c 4.0, CHCl₃)

Source of chirality: asymmetric synthesis

Absolute configuration: (R,R)



(4*S*)-Benzyl-3-(2*R*-phenylpropionyl)-oxazolidin-2-one

Ee >98%; De >98%

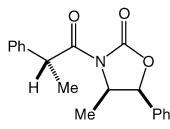
[α]_D²⁰ = +1.46 (c 9.8, CHCl₃)

Source of chirality: asymmetric synthesis

Absolute configuration: (R,S)

Ewan Boyd, Elliot Coulbeck, Gregory S. Coumbarides, Sameer Chavda, Marco Dingjan, Jason Eames,* Anthony Flinn, Majid Motevalli, Julian Northen and Yonas Yohannes

Tetrahedron: Asymmetry 18 (2007) 2515



(4*R*,5*S*)-4-Methyl-5-phenyl-3-(2*R*-phenylpropionyl)-oxazolidin-2-one

Ee >98%; De >98%

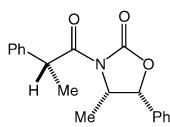
[α]_D²⁰ = -39.2 (c 4.0, CHCl₃)

Source of chirality: asymmetric synthesis

Absolute configuration: (R,R,S)

Ewan Boyd, Elliot Coulbeck, Gregory S. Coumbarides, Sameer Chavda, Marco Dingjan, Jason Eames,* Anthony Flinn, Majid Motevalli, Julian Northen and Yonas Yohannes

Tetrahedron: Asymmetry 18 (2007) 2515



(4*S*,5*R*)-4-Methyl-5-phenyl-3-(2*R*-phenylpropionyl)-oxazolidin-2-one

Ee >98%; De >98%

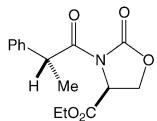
[α]_D²⁰ = -106.9 (c 3.2, CHCl₃)

Source of chirality: asymmetric synthesis

Absolute configuration: (R,S,R)

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Ee >98%; De >98%

$[\alpha]_D^{20} = -129.5$ (c 2.2, CHCl₃)

Source of chirality: asymmetric synthesis

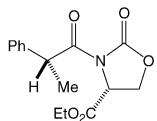
Absolute configuration: (R,S)

C₁₅H₁₇NO₅

(4S)-Ethyl 2-oxa-3-(2R-phenylpropionyl)-oxazolidin-4-carboxylate

Ewan Boyd, Elliot Coulbeck, Gregory S. Coumbarides, Sameer Chavda, Marco Dingjan, Jason Eames,* Anthony Flinn, Majid Motevalli, Julian Northen and Yonas Yohannes

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Ee >98%; De >98%

$[\alpha]_D^{20} = -24.8$ (c 5.3, CHCl₃)

Source of chirality: asymmetric synthesis

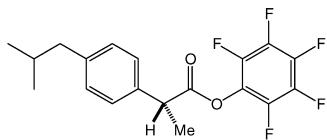
Absolute configuration: (R,R)

C₁₅H₁₇NO₅

(4R)-Ethyl 2-oxa-3-(2R-phenylpropionyl)-oxazolidin-4-carboxylate

Ewan Boyd, Elliot Coulbeck, Gregory S. Coumbarides, Sameer Chavda, Marco Dingjan, Jason Eames,* Anthony Flinn, Majid Motevalli, Julian Northen and Yonas Yohannes

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Ee >98%

$[\alpha]_D^{20} = -91.4$ (c 5.0, CHCl₃)

Source of chirality: asymmetric synthesis

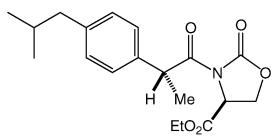
Absolute configuration: (R)

C₁₉H₁₇F₅O₂

(2R)-Pentafluorophenyl 2-(4-isobutylphenyl)propionate

Ewan Boyd, Elliot Coulbeck, Gregory S. Coumbarides, Sameer Chavda, Marco Dingjan, Jason Eames,* Anthony Flinn, Majid Motevalli, Julian Northen and Yonas Yohannes

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Ee >98%; De >98%

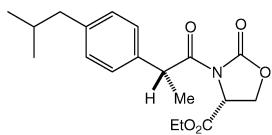
$[\alpha]_D^{20} = -125.4$ (c 12.0, CHCl₃)

Source of chirality: asymmetric synthesis

Absolute configuration: (R,S)

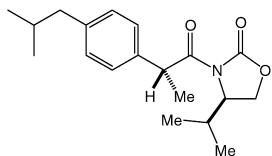
C₁₉H₂₅NO₅

(4S)-Ethyl 2-oxa-3-{2R-(4-isobutylphenyl)propionyl}-oxazolidin-4-carboxylate



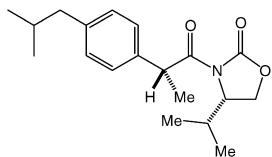
$C_{19}H_{25}NO_5$
 (4*R*)-Ethyl 2-oxa-3-{2*R*-(4-isobutylphenylpropionyl)}-oxazolidin-4-carboxylate

Ee >98%; De >98%
 $[\alpha]_D^{20} = -25.2$ (*c* 5.0, CHCl₃)
 Source of chirality: asymmetric synthesis
 Absolute configuration: (*R,R*)



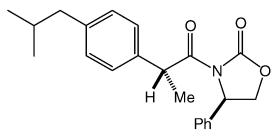
$C_{19}H_{27}NO_3$
 (4*R*)-Isopropyl 3-{2*R*-(4-isobutylphenylpropionyl)}-oxazolidin-2-one

Ee >98%; De >98%
 $[\alpha]_D^{20} = -87.5$ (*c* 12.0, CHCl₃)
 Source of chirality: asymmetric synthesis
 Absolute configuration: (*R,R*)



$C_{19}H_{27}NO_3$
 (4*S*)-Isopropyl 3-{2*R*-(4-isobutylphenylpropionyl)}-oxazolidin-2-one

Ee >98%; De >98%
 $[\alpha]_D^{20} = -33.0$ (*c* 1.2, CHCl₃)
 Source of chirality: asymmetric synthesis
 Absolute configuration: (*R,S*)

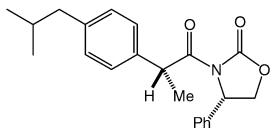


$C_{22}H_{25}NO_3$
 (4*R*)-Phenyl 3-{2*R*-(4-isobutylphenylpropionyl)}-oxazolidin-2-one

Ee >98%; De >98%
 $[\alpha]_D^{20} = +144.5$ (*c* 7.2, CHCl₃)
 Source of chirality: asymmetric synthesis
 Absolute configuration: (*R,R*)

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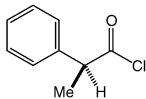
$C_{22}H_{25}NO_3$
(4S)-Phenyl-3-{(2R)-[4-isobutylphenyl]propionyl}-oxazolidin-2-one

Ee >98%; De >98%;
 $[\alpha]_D^{20} = -114.6$ (*c* 4.2, CHCl₃)

Source of chirality: asymmetric synthesis
 Absolute configuration: (R,S)

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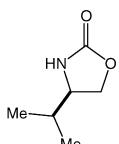


C_9H_9ClO
(S)-2-Phenylpropionyl chloride

Ee >98%;
 $[\alpha]_D^{20} = +73.2$ (*c* 4.0, CHCl₃)
 Source of chirality: asymmetric synthesis
 Absolute configuration: (S)

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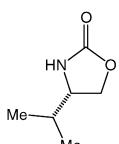


$C_6H_{11}NO_2$
(R)-4-Isopropyl-oxazolidin-2-one

Ee >98%;
 $[\alpha]_D^{20} = -14.0$ (*c* 2.4, CHCl₃)
 Source of chirality: asymmetric synthesis
 Absolute configuration: (R)

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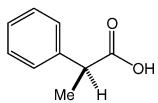


$C_6H_{11}NO_2$
(S)-4-Isopropyl-oxazolidin-2-one

Ee >98%;
 $[\alpha]_D^{20} = +13.7$ (*c* 3.8, CHCl₃)
 Source of chirality: asymmetric synthesis
 Absolute configuration: (S)

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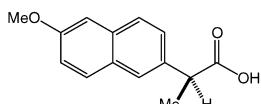
C₉H₁₀O₂
(S)-2-Phenylpropionic acid

Ee >98%

[α]_D²⁰ = +71.5 (c 2.0, CHCl₃)

Source of chirality: asymmetric synthesis

Absolute configuration: (S)



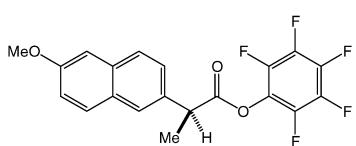
C₁₄H₁₄O₃
(S)-2-(6-Methoxynaphth-2-yl)-propionic acid

Ee >98%

[α]_D²⁰ = +65.0 (c 1.0, CHCl₃)

Source of chirality: asymmetric synthesis

Absolute configuration: (S)



C₂₀H₁₃F₅O₃
(S)-Pentafluorophenyl 2-(6-methoxynaphth-2-yl)-propionate

Ee >98%

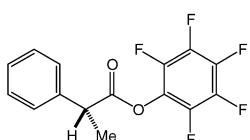
[α]_D²⁰ = +93.6 (c 5.6, CHCl₃)

Source of chirality: asymmetric synthesis

Absolute configuration: (S)

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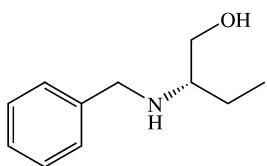
C₁₅H₉F₅O₂
(R)-Pentafluorophenyl 2-phenylpropionate

Ee >98%

[α]_D²⁰ = -75.0 (c 3.3, CHCl₃)

Source of chirality: asymmetric synthesis

Absolute configuration: (R)



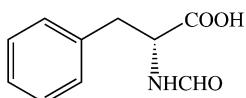
C₁₁H₁₇NO
Benzylaminobutanol

Ee >99.5%

[α]_D²⁰ = +25.2 (c 2, ethanol)

Source of chirality: enantiopure resolving agent

Absolute configuration: (S)



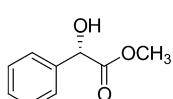
C₁₀H₁₁NO₃
N-Formylphenylalanine

Ee >83% by chiral HPLC

[α]_D²⁰ = -62.3 (c 2, ethanol)

Source of chirality: optical resolution

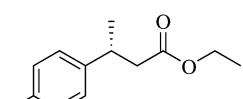
Absolute configuration: (R)



C₉H₁₀O₃
(S)-Methyl mandelate

[α]_D²⁰ = +130.2 (c 0.8, methanol)

Absolute configuration: (S)

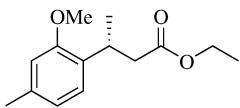


C₁₃H₁₈O₂
(3R)-Ethyl 3-(4-methylphenyl)butanoate

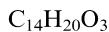
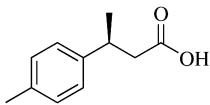
[α]_D²⁵ = -26.2 (c 3.5, CHCl₃)

Source of chirality: enzymatic resolution

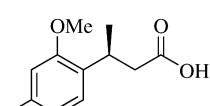
Absolute configuration: (3R)


 $[\alpha]_D^{25} = -2.7$ (*c* 1.0, CHCl₃)

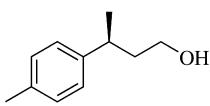
Source of chirality: enzymatic resolution

Absolute configuration: (3*R*)(3*R*)-Ethyl 3-(2-methoxy-4-methylphenyl)butanoate
 $[\alpha]_D^{25} = +34.2$ (*c* 1.0, CHCl₃)

Source of chirality: enzymatic resolution

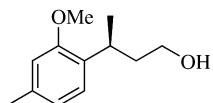
Absolute configuration: (3*S*)(3*S*)-3-(4-Methylphenyl)butanoic acid
 $[\alpha]_D^{25} = +16.2$ (*c* 2.5, CHCl₃)

Source of chirality: enzymatic resolution

Absolute configuration: (3*S*)(3*S*)-3-(2-Methoxy-4-methylphenyl)butanoic acid
 $[\alpha]_D^{25} = +30.1$ (*c* 1.0, CHCl₃)

Source of chirality: enzymatic resolution

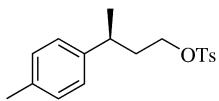
Absolute configuration: (3*S*)(3*S*)-3-(4-Methylphenyl)-1-butanol


 $[\alpha]_D^{25} = +21.6 (c \ 1.0, \text{CHCl}_3)$

Source of chirality: enzymatic resolution

Absolute configuration: (3S)

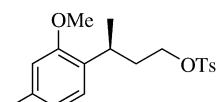
$\text{C}_{12}\text{H}_{18}\text{O}_2$
(3S)-3-(2-Methoxy-4-methylphenyl)-1-butanol


 $[\alpha]_D^{25} = +37.7 (c \ 1.0, \text{CHCl}_3)$

Source of chirality: enzymatic resolution

Absolute configuration: (3S)

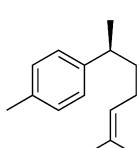
$\text{C}_{18}\text{H}_{22}\text{O}_3\text{S}$
(3S)-3-(4-Methylphenyl)butyl 4-methyl-1-benzenesulfonate


 $[\alpha]_D^{25} = +14.2 (c \ 3.6, \text{CHCl}_3)$

Source of chirality: enzymatic resolution

Absolute configuration: (3S)

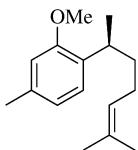
$\text{C}_{19}\text{H}_{24}\text{O}_4\text{S}$
(3S)-3-(2-Methoxy-4-methylphenyl)butyl 4-methyl-1-benzenesulfonate


 $[\alpha]_D^{25} = +42.7 (c \ 1.0, \text{CHCl}_3)$

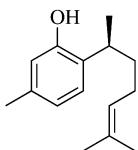
Source of chirality: enzymatic resolution

Absolute configuration: (6S)

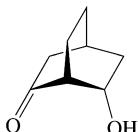
$\text{C}_{15}\text{H}_{22}$
(6S)-2-Methyl-6-(4-methylphenyl)-2-heptene


 $[\alpha]_D^{25} = +7.1$ (*c* 1.0, CHCl₃)

Source of chirality: enzymatic resolution

Absolute configuration: (6*S*)C₁₆H₂₄O(6*S*)-6-(2-Methoxy-4-methylphenyl)-2-methyl-2-heptene
 $[\alpha]_D^{25} = +23.5$ (*c* 1.0, CHCl₃)

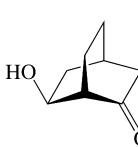
Source of chirality: enzymatic resolution

Absolute configuration: (1*S*)C₁₅H₂₂O2-[(1*S*)-1,5-Dimethyl-4-hexenyl]-5-methylphenol

Ee = 96%

 $[\alpha]_D^{22} = -7.6$ (*c* 1.15, CHCl₃)

Source of chirality: enzymatic reduction

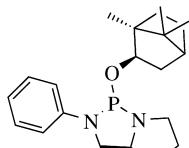
Absolute configuration: (1*R*,4*S*,6*S*)C₈H₁₂O₂(1*R*,4*S*,6*S*)-6-Hydroxy-bicyclo[2.2.2]octane-2-one
 $[\alpha]_D^{22} = +4.1$ (*c* 1.0, CHCl₃)

Source of chirality: enzymatic reduction

Absolute configuration: (1*S*,4*R*,6*S*)C₈H₁₂O₂(1*S*,4*R*,6*S*)-6-Hydroxy-bicyclo[2.2.2]octane-2-one

Konstantin N. Gavrilov,* Eduard B. Benetsky, Tatiana B. Grishina,
Sergey V. Zheglov, Eugenie A. Rastorguev, Pavel V. Petrovskii,
Fliur Z. Macaev and Vadim A. Davankov

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(2*R*,5*S*,1'*S*,2'*R*)-2-(1',7',7'-Trimethylbicyclo[2.2.1]heptyl-2'-oxy)-3-phenyl-1,3-diaza-2-phosphabicyclo[3.3.0]octane

Ee = 100%

[α]_D²⁰ = -251.4 (c 1.0, CH₂Cl₂)

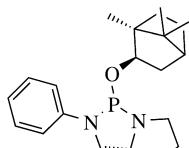
Source of chirality: (*S*)-(+)-glutamic acid

endo-(1*S*)-1,7,7,-trimethylbicyclo[2.2.1]heptane-2-ol

Absolute configuration: (2*R*,5*S*,1'*S*,2'*R*)

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(2*S*,5*R*,1'*S*,2'*R*)-2-(1',7',7'-Trimethylbicyclo[2.2.1]heptyl-2'-oxy)-3-phenyl-1,3-diaza-2-phosphabicyclo[3.3.0]octane

Ee = 100%

[α]_D²⁰ = +237.7 (c 1.0, CH₂Cl₂)

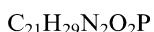
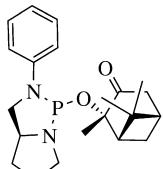
Source of chirality: (*R*)-(−)-glutamic acid

endo-(1*S*)-1,7,7,-trimethylbicyclo[2.2.1]heptane-2-ol

Absolute configuration: (2*S*,5*R*,1'*S*,2'*R*)

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(2*R*,5*S*,1'*S*,2'*S*,5'*S*)-2-(2',6',6'-Trimethylbicyclo[3.1.1]heptan-3'-one-2'-oxy)-3-phenyl-1,3-diaza-2-phosphabicyclo[3.3.0]octane

[α]_D²⁰ = -197.1 (c 1.0, CH₂Cl₂)

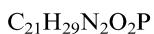
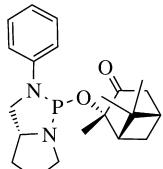
Source of chirality: (*S*)-(+)-glutamic acid

(1*S*,2*S*,5*S*)-(−)-2-hydroxy-3-pinane

Absolute configuration: (2*R*,5*S*,1'*S*,2'*S*,5'*S*)

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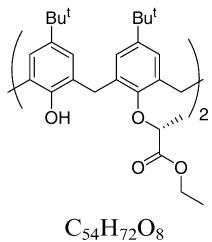
(2*S*,5*R*,1'*S*,2'*S*,5'*S*)-2-(2',6',6'-Trimethylbicyclo[3.1.1]heptan-3'-one-2'-oxy)-3-phenyl-1,3-diaza-2-phosphabicyclo[3.3.0]octane

[α]_D²⁰ = +217.4 (c 1.0, CH₂Cl₂)

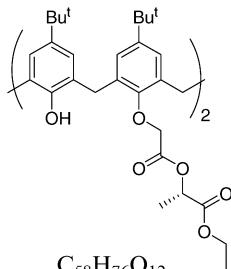
Source of chirality: (*R*)-(−)-glutamic acid

(1*S*,2*S*,5*S*)-(−)-2-hydroxy-3-pinane

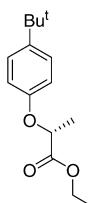
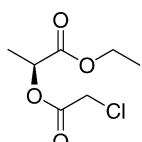
Absolute configuration: (2*S*,5*R*,1'*S*,2'*S*,5'*S*)

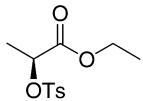


5,11,17,23-Tetra-tert-butyl-25,27-bis[(R)-1-ethoxycarbonylethoxy]-26,28-dihydroxycalix[4]arene

 $[\alpha]_D^{22} = +65$ (*c* 1.0, CH_2Cl_2)Source of chirality: ethyl (*S*)-lactateAbsolute configuration: (*R*)

5,11,17,23-Tetra-tert-butyl-25,27-bis[(S)-(1-ethoxycarbonylethoxy)carbonylmethoxy]-26,28-dihydroxycalix[4]arene

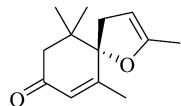
 $[\alpha]_D^{24} = -7.1$ (*c* 1.0, CH_2Cl_2)Source of chirality: ethyl (*S*)-lactateAbsolute configuration: (*S*)p-tert-Butylphenyl-[(*R*)-1-ethoxycarbonylethoxy] $[\alpha]_D^{26} = +26.6$ (*c* 1.0, CH_2Cl_2)Source of chirality: ethyl (*S*)-lactateAbsolute configuration: (*R*)Ethyl (*S*)-2-(chloroacetoxy)propanoate $[\alpha]_D^{26} = -42.6$ (*c* 1.0, CH_2Cl_2)Source of chirality: ethyl (*S*)-lactateAbsolute configuration: (*S*)

$[\alpha]_D^{26} = -30$ (*c* 1.0, CH₂Cl₂)Source of chirality: ethyl (*S*)-lactateAbsolute configuration: (*S*)Ethyl (*S*)-2-*p*-toluenesulfonyloxypropanoate

Ee = 98% (chiral GC analysis)

 $[\alpha]_D^{20} = +35$ (*c* 1, CHCl₃)

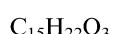
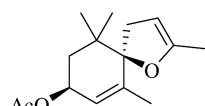
Source of chirality: lipase-mediated resolution and fractional crystallization

Absolute configuration: (6*S*)(+)-(6*S*)-Dehydrotheaspiron

Ee = 97%

 $[\alpha]_D^{20} = -17.4$ (*c* 1, CHCl₃)

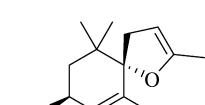
Source of chirality: lipase-mediated resolution and fractional crystallization

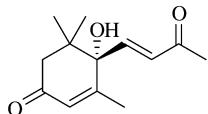
Absolute configuration: (5*R*,8*S*)(-)-(5*R*,8*S*)-2,6,10-Tetramethyl-1-oxa-spiro[4.5]deca-2,6-dien-8-yl acetate

Ee = 98%

 $[\alpha]_D^{20} = -48.7$ (*c* 1, CHCl₃)

Source of chirality: lipase-mediated resolution and fractional crystallization

Absolute configuration: (5*S*,8*S*)(-)-(5*S*,8*S*)-2,6,10-Tetramethyl-1-oxa-spiro[4.5]deca-2,6-dien-8-yl acetate



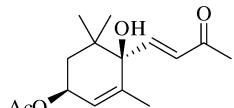
$C_{13}H_{18}O_3$
(+)-Dehydrovomifoliol

Ee = 98%

$[\alpha]_D^{20} = +222$ (*c* 0.5, CH_2Cl_2)

Source of chirality: lipase-mediated resolution and fractional crystallization

Absolute configuration: (6*S*)



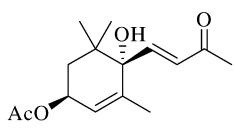
(−)-(3*S*,6*R*)-3-Acetoxy-6-hydroxy- α -ionone

Ee = 97%

$[\alpha]_D^{20} = -198.8$ (*c* 1, $CHCl_3$)

Source of chirality: lipase-mediated resolution and fractional crystallization

Absolute configuration: (3*S*,6*R*)



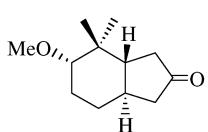
(+)-(3*S*,6*S*)-3-Acetoxy-6-hydroxy- α -ionone

Ee = 98%

$[\alpha]_D^{20} = +164$ (*c* 1, $CHCl_3$)

Source of chirality: lipase-mediated resolution and fractional crystallization

Absolute configuration: (3*S*,6*S*)

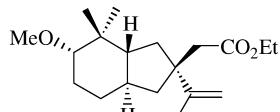


$C_{12}H_{20}O_3$
(1*R*,3*S*,6*R*)-2,2-Dimethyl-3-methoxybicyclo[4.3.0]nonan-8-one

$[\alpha]_D^{25} = -35.0$ (*c* 3.0, $CHCl_3$)

Source of chirality: campholenaldehyde

Absolute configuration: (1*R*,3*S*,6*R*)

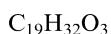
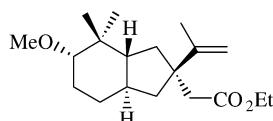


Ethyl 2-[(1R,3S,6R,8S)-3-methoxy-2,2-dimethyl-8-(1-methylethyl)bicyclo[4.3.0]non-8-yl]-acetate

$[\alpha]_D^{25} = +4.4$ (*c* 1.8, CHCl₃)

Source of chirality: campholenaldehyde

Absolute configuration: (1R,3S,6R,8R)

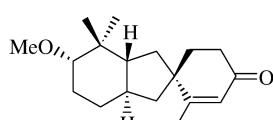


Ethyl 2-[(1R,3S,6R,8R)-3-methoxy-2,2-dimethyl-8-(1-methylethyl)bicyclo[4.3.0]non-8-yl]-acetate

$[\alpha]_D^{25} = -4.4$ (*c* 1.8, CHCl₃)

Source of chirality: campholenaldehyde

Absolute configuration: (1R,3S,6R,8S)

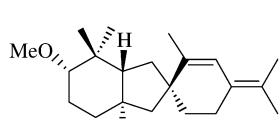


(1R,3S,6R,8R)-3-Methoxy-2,2'-trimethyl-bicyclo[4.3.0]nonanespiro[8.1']cyclohex-2'-en-4'-one

$[\alpha]_D^{25} = -38.3$ (*c* 0.6, CHCl₃)

Source of chirality: campholenaldehyde

Absolute configuration: (1R,3S,6R,8R)

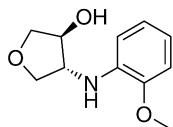


(1R,3S,6R,8S)-4'-Isopropylidene-3-methoxy-2,2,2'-trimethylbicyclo[4.3.0]nonanespiro-[8.1']cyclohex-2'-ene

$[\alpha]_D^{23} = +15.0$ (*c* 1.4, CHCl₃)

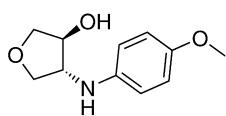
Source of chirality: campholenaldehyde

Absolute configuration: (1R,3S,6R,8S)



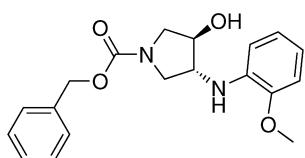
$C_{11}H_{15}NO_3$
(1*R*,2*R*)-4-Oxa-2-(2-methoxyphenylamino)cyclopentanol

Ee = 48% by HPLC on WHELK O1 column
 $[\alpha]_D^{20} = +7.9$ (*c* 1.0, $CHCl_3$)
Source of chirality: asymmetric catalysis
Absolute configuration: (1*R*,2*R*)



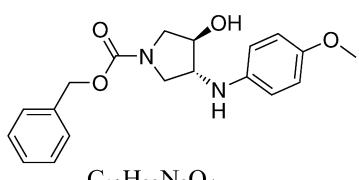
$C_{11}H_{15}NO_3$
(1*R*,2*R*)-4-Oxa-2-(4-methoxyphenylamino)cyclopentanol

Ee = 66% by HPLC on CHIRALPAK AD column
 $[\alpha]_D^{20} = +8.1$ (*c* 1.0, $CHCl_3$)
Source of chirality: asymmetric catalysis
Absolute configuration: (1*R*,2*R*)



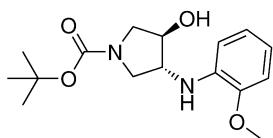
$C_{19}H_{22}N_2O_4$
(3*R*,4*R*)-Benzyl 3-hydroxy-4-(2-methoxyphenylamino)pyrrolidine-1-carboxylate

Ee = 43% by HPLC on CHIRALPAK AD column
 $[\alpha]_D^{20} = +12.1$ (*c* 1.0, $CHCl_3$)
Source of chirality: asymmetric catalysis
Absolute configuration: (3*R*,4*R*)



$C_{19}H_{22}N_2O_4$
(3*R*,4*R*)-Benzyl 3-hydroxy-4-(4-methoxy-phenylamino)pyrrolidine-1-carboxylate

Ee = 10% by HPLC on CHIRALCEL OD-H column
 $[\alpha]_D^{20} = +3.0$ (*c* 1.0, $CHCl_3$)
Source of chirality: asymmetric catalysis
Absolute configuration: (3*R*,4*R*)



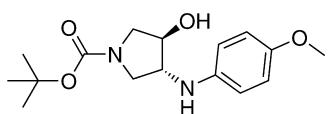
C₁₆H₂₄N₂O₄
(3*R*,4*R*)-*tert*-Butyl 3-hydroxy-4-(2-methoxyphenylamino)pyrrolidine-1-carboxylate

Ee = 58% by HPLC on CHIRALPAK IA column

[α]_D²⁰ = +11.4 (c 1.0, CHCl₃)

Source of chirality: asymmetric catalysis

Absolute configuration: (3*R*,4*R*)



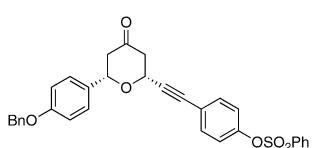
C₁₆H₂₄N₂O₄
(3*R*,4*R*)-*tert*-Butyl 3-hydroxy-4-(4-methoxyphenylamino)pyrrolidine-1-carboxylate

Ee = 47% by HPLC on CHIRALPAK IA column

[α]_D²⁰ = +7.5 (c 0.94, CHCl₃)

Source of chirality: asymmetric catalysis

Absolute configuration: (3*R*,4*R*)

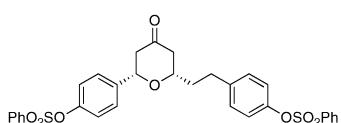


C₃₂H₂₆O₆S
(2*R*,6*S*)-2-(4-Benzenesulfonyloxyphenylethynyl)-6-(4-benzyloxyphenyl)tetrahydropyran-4-one

[α]_D²² = -2.9 (c 1.00, CHCl₃)

Source of chirality: asymmetric hetero-Diels–Alder reaction

Absolute configuration: (2*R*,6*S*)

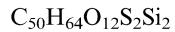
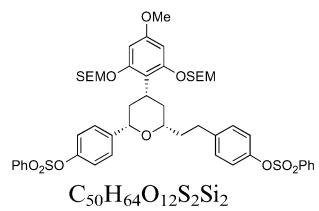


C₃₁H₂₈O₈S₂
(2*S*,6*S*)-2-(4-Benzenesulfonyloxyphenyl)-6-[2-(4-benzenesulfonyloxyphenyl)ethyl]tetrahydropyran-4-one

[α]_D²¹ = -45.5 (c 1.00, CHCl₃)

Source of chirality: asymmetric hetero-Diels–Alder reaction

Absolute configuration: (2*S*,6*S*)



(2*S*,4*R*,6*S*)-2-(4-Benzenesulfonyloxyphenyl)-6-[2-(4-benzenesulfonyloxyphenyl)ethyl]-4-{4-methoxy-2,6-bis-[2-(trimethylsilyl)-ethoxymethoxy]phenyl}tetrahydropyran

$[\alpha]_D^{24} = -6.7$ (*c* 1.05, $CHCl_3$)

Source of chirality: asymmetric hetero-Diels–Alder reaction

Absolute configuration: (2*S*,4*R*,6*S*)